

Heat Stress Terms & Information

If there is a heat wave this summer, SEMA will be working closely with the Missouri Department of Health and Senior Services (MDH&SS). The Missouri Community Action Agencies usually loans fans to low-income families. The MDH&SS Division of Senior Services maintains a list of senior cooling centers.

The Department of Health will announce a statewide **Hot Weather Health Alert** when afternoon heat indexes of 105 degrees in a large proportion of the state are first reached (or predicted). This advisory will be upgraded to a statewide **Hot Weather Health Warning** when the afternoon heat index has been at least 105 degrees or more for two days in a large proportion of the state. Or when weather forecasts call for continued heat stress conditions for at least 24-48 hours over a large portion of the state.

A statewide **Hot Weather Health Emergency** will be issued when extensive areas of the state met the following three criterias. The criteria are 1) high-sustained levels of heat stress (105 degrees for three days), 2) increased numbers of heat-related illness and death statewide, and 3) the National Weather Service (NWS) predicts hot, humid temperatures will continue for several days in a large proportion of the state. During a statewide Hot Weather Health Emergency, SEMA becomes the state-level coordinating agency for all participating state and federal agencies and other private and volunteer organizations.

During the summer, the elderly are at greatest risk from a heat wave. In addition to the elderly, infants, young children, and people with chronic health problems (especially pre-existing heart disease) or disabilities are more vulnerable to the effects of heat waves. People who are not acclimated to hot weather, overexert themselves, are overweight, or use alcohol or drugs (including drugs such as antipsychotics, tranquilizers, antidepressants, certain types of sleeping pills, and drugs for Parkinson's disease) are at great risk. (Source: Centers for Disease Control and Prevention-Morbidity and Mortality Weekly Report)

Heat Disorder	Symptoms	First Aid
Heat Cramps	Painful spasms usually in muscles of legs and abdomen due to heavy exertion. Heavy sweating.	Stop activity and rest in a cool place. Lightly stretch or gently massage muscle to relieve spasms. Give sips of cool water.
Heat exhaustion	Heavy sweating. Skin cool, pale, and clammy. Pulse fast and weak. Breathing fast and shallow. Fainting, dizziness, vomiting, and nausea.	Get victim to a cool place. Have him/her lie down and loosen clothing. Apply cool, moist cloths. Give sips of cool water.
Heat stroke (sun stroke)	Temperature 103 or higher. No sweating, rapid pulse, fast and shallow breathing. Hot, red, dry skin. Nausea, dizziness, headache, confusion.	HEAT STROKE IS A SEVERE MEDICAL EMERGENCY. SUMMON EMERGENCY ASSISTANCE OR GET THE VICTIM TO THE HOSPITAL. DELAY CAN BE FATAL. Move the victim to a cooler environment. Use cool baths or sponging to reduce body temperature.

Table 1: A list of common heat-induced health problems and their suggested treatment (Reference: The American Red Cross)

Preventing Heat-Related Illness

Seek Air Conditioning! The most efficient way to beat the heat is to spend time in an air-conditioned area. If you do not have air conditioning in your home, consider spending some time in a shopping mall, public library or other air-conditioned location. Electric fans may be useful to increase comfort or to draw cool air into your home at night, but do not rely on a fan as your primary cooling device during a heat wave. As the air temperature rises, airflow is increasingly ineffective in cooling the body until finally, at temperatures above about 100° F (the exact number varies with the humidity) increasing air movement actually increases heat stress. For example, at 100° F a fan may be delivering overheated air to the skin faster than the body can get rid of this heat with sweating. The net effect is to add heat rather than to cool the body.

Be aware of the warning signs of heat-related illness, such as light-headedness, mild nausea or confusion, sleepiness or profuse sweating.

While outdoors, rest frequently in a shady area so that your body's thermostat has a chance to recover.

Schedule outdoor activities carefully, preferably before noon or in the evening,

If unaccustomed to working or exercising in a hot environment, start slowly, pick up the pace gradually and limit your exercise or work time.

Wear sunscreen to protect skin from the sun's harmful rays. Sunburn affects your body's ability to cool itself and causes a loss of body fluids.

Wear lightweight, light-colored, loose-fitting clothing.

When working in the heat, **monitor the condition of your co-workers** and have someone do the same for you. If you are 65 years of age or older, have a friend or relative call to check on you twice a day when hot weather health advisories have been issued.

Stay indoors and in an air-conditioned environment. If air conditioning is not available, consider a visit to a shopping mall, public library, theater, supermarket or other air-conditioned location for a few hours.

Increase your fluid intake—regardless of your activity level. Don't wait until you feel thirsty to drink fluids. Ensure infants and children drink adequate amounts of liquids.

Avoid drinks containing caffeine, alcohol, or large amounts of sugar because they will actually cause you to lose more fluid. Also, avoid very cold beverages because they can cause stomach cramps.

Electric fans may be useful to increase comfort and to draw cool air into your home at night, but do not rely on a fan as your primary cooling device during a heat wave. When the temperature is in the upper 90s or higher, a fan will not prevent heat-related illness. A cool shower or bath is a more effective way to cool off.

Who has the greatest risk of heat-related illness?

1. Infants and children up to 4 years of age;
2. Anyone 65 years of age or older;
3. Anyone who is overweight;
4. Anyone who overexerts during work or exercise;
5. Anyone who is ill or on certain medications;
6. Avoid hot foods and heavy meals;
7. Ask your doctor whether medications you take affect your body's response to the heat;
8. Do not leave infants, children or pets unattended in a parked car.